

IN THE DRAWINGS:

Please enter the attached corrected drawings Figs. 9-12, in which a legend of "Prior Art" is being added, to replace Figs. 9-12 as originally filed. A Letter to Draftsperson is also submitted herewith.

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated October 18, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due consideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-22 are under consideration in this application. Claims 1-8, 10-11, and 14-19 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicant's invention. New claims 20-22 are being added to recite other features of the embodiment described in the specification.

The claims and the specification are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification, especially Fig. 1A and page 18, 1st paragraph. Applicant hereby submits that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Figs. 9-12 were objected to for lacking the legend of "Prior Art," and claims 18-19 were objected to for informalities. As indicated, the drawings and the claims are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Allowed Subject Matter

Claim 2 would be allowed if rewritten in independent form including all limitations of the base claim and any intervening claims.

As claim 2 is being rewritten in independent form to include all limitations of the base claim and any intervening claims, it is in condition for allowance.

Prior Art Rejections

Claims 1, 3-5, 11 and 18 were rejected under 35 U.S.C. § 102(e) as being anticipated by US Patent No. 6,624,860 to Narutaki et al. (hereinafter “Narutaki”), and claims 6-8, 14 and 19 were rejected under 35 USC § 103(a) as being unpatentable over Narutaki in view of US Pat. App. Pub. No. 2003/0020852 of Chang et al. (hereinafter “Chang”). These rejections have been carefully considered, but are most respectfully traversed.

The liquid crystal display device of the invention (for example, the embodiment depicted in Figs. 1A-1C), as now recited in claim 1, comprises: a pair of substrates SUB1, SUB2; a liquid crystal layer which is sandwiched between said pair of substrates SUB1, SUB2; a plurality of pixels PX which are arranged in a matrix array; and color filters CF. At least one color filter forming region CFA (one area as marked in diagonal lines in the Explanatory drawing) and at least one color filter non-forming region CFN (two areas marked in dots in the Explanatory drawing) are formed within a lighting region BA in each of the pixels PX, said lighting region BA is visible to a viewer in the inside of each said pixel PX. A first/left side LS of said lighting region BA includes both of said color filter forming region CFA (enclosed by LSA) and said color filter non-forming region CFN (enclosed by LSB). A second/right side RS of said lighting region which faces the first side LS in an opposed manner includes both of said color filter forming region CFA (enclosed by RSA) and said color filter non-forming region CFN (enclosed by RSA). Said color filter forming region CFA of said first side LS entirely corresponds to said color filter non-forming region CFN of said second side RS, and said color filter non-forming region CFN of said first side LS entirely corresponds to said color filter forming region CFA of said second side RS. (Fig. 1A; p. 18, 2nd paragraph; *“the first side LS forms the color filter non-forming region CFN in the region LSB thereof which faces the color filter forming region RSA of the second side RS, while the second side RS forms the color filter non-forming region CFN in the region RSB thereof which faces the color filter forming region LSA of the first side LS.”* p. 19, 2nd paragraph).

The invention recited in claim 18 is directed to the liquid crystal display device recited in claim 1 except substituting “the lighting region BA” with “a pixel electrode PX” (*“the pixel electrodes PX are formed correspond to the lighting region BA with respect to the liquid crystal display device in which the pixel regions are not covered with the light shielding film BM”* p. 27, lines 2-5)

The invention recited in claim 19 is directed to the liquid crystal display device recited in claim 1 except substituting “the lighting region BA” with “an opening portion of the black matrix BM” (“*the opening regions of the light shielding film BM constitute the lighting regions BA with respect to the liquid crystal display device in which the pixel regions are covered with the light shielding film BM*” p. 26, last paragraph).

Applicants respectfully contend that none of the cited prior art references teaches or suggests that “the color filter forming region CFA of said first side LS entirely corresponds to said color filter non-forming region CFN of said second side RS, and said color filter non-forming region CFN of said first side LS entirely corresponds to said color filter forming region CFA of said second side RS” as the invention.

In contrast, Narutaki’s (e.g., Fig. 12A) color filter forming region of said first side corresponds to **both** a color filter forming region and a color filter non-forming region of said second side (rather than entirely corresponding only to the color filter non-forming region), and its color filter non-forming region of said first side corresponds to **both** the color filter non-forming region and the color filter forming region of said second side (rather than entirely corresponding only to the color filter forming region).

As another example, both Fig. 13A in Narutaki and the prior art depicted in Fig. 12 of the specification have their color filter forming region of said first side corresponding to the color filter forming (rather than “non-forming”) region of said second side, and the color filter non-forming region of said first side corresponds to the color filter non-forming (rather than “forming”) region of the second side.

Chang does not compensate for Narutaki’s deficiencies as described above.

The invention provides the unique shape of color filter CF positioned with respect to the lighting region BA to achieve unexpected results or properties, including, for example, “to realize *high definition and the high numerical aperture* (p. 9, lines 6-7)”.

Due to such a configuration of the invention, a distance “a” between the neighboring color filters CF can be narrowed to a level comparable to the accuracy of the misalignment at the time of forming color filters, which is narrower than the “a” in Fig. 9A of the specification and corresponding “a” of Fig. 12A of Narutaki (See the Explanatory drawings). Further, it is possible to narrow a width between the neighboring lighting regions BA (for example, a width of the light shielding film BM) “b” independently from the distance “a” between the neighboring color filters CF (p. 19, 3rd paragraph; Fig. 1A). Again, the width “b” between the neighboring lighting regions BA of the invention is narrower than the “b” in

Fig. 9A of the specification and a corresponding “b” of Fig. 12A of Narutaki. The invention efficiently narrows a margin between neighboring color filters (p. 21, lines 1-2) and between the neighbor lighting regions (p. 28, lines 14-15), thereby realizing high definition and high numerical aperture.

The presence of these unexpected properties is evidence of nonobviousness. MPEP§716.02(a).

“Presence of a property not possessed by the prior art is evidence of nonobviousness. In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (rejection of claims to compound structurally similar to the prior art compound was reversed because claimed compound unexpectedly possessed anti-inflammatory properties not possessed by the prior art compound); Ex parte Thumm, 132 USPQ 66 (Bd. App. 1961) (Appellant showed that the claimed range of ethylene diamine was effective for the purpose of producing " 'regenerated cellulose consisting substantially entirely of skin' " whereas the prior art warned "this compound has 'practically no effect.' ").

Although “[t]he submission of evidence that a new product possesses unexpected properties does not necessarily require a conclusion that the claimed invention is nonobvious. In re Payne, 606 F.2d 303, 203 USPQ 245 (CCPA 1979). See the discussion of latent properties and additional advantages in MPEP § 2145,” the unexpected properties were unknown and non-inherent functions in view of the prior art, since the prior art does not inherently achieve the same results. In other words, these advantages would not flow naturally from following the teachings of the prior art, since the prior art fails to suggest that “the color filter forming region CFA of said first side LS entirely corresponds to said color filter non-forming region CFN of said second side RS, and said color filter non-forming region CFN of said first side LS entirely corresponds to said color filter forming region CFA of said second side RS”.

Applicants further contend that the mere fact that one of skill in the art could rearrange the prior art to meet the terms of the claims is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for one skilled in the art to provide the unexpected properties, such as to realize high definition and the high numerical aperture, without the benefit of appellant's specification, to make the necessary changes in the reference device. *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984). MPEP§2144.04 VI C.

The cited prior art references fail to teach or suggest each and every feature of the present invention as recited in independent claims 1 and 18-19 from which other claims depend. As such, the present invention as now claimed is distinguishable and thereby allowable over the prior art cited in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and telephone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344



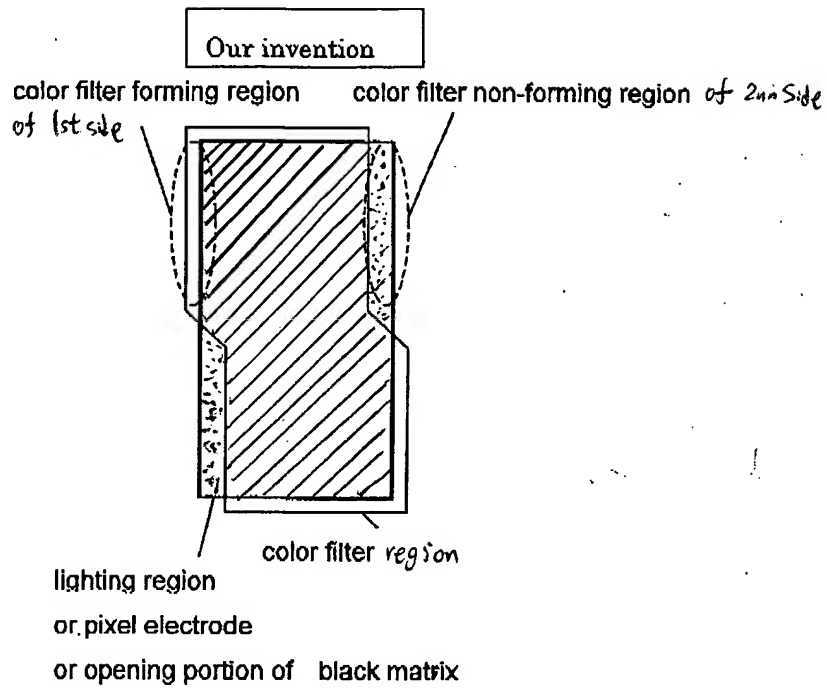
Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

April 18, 2006

SPF/JCM/JT

Explanatory Drawings



Natutaki et al. (USPN.6624860)

FIG. 12A

